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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,789	11/08/1999	GORDON JAMES SMITH	RO999-123(IB	5685

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IBM Corporation  
Intellectual Property Law  
3605 Highway 52 North  
Dept. 917 - Bldg. 006-1  
Rochester, MN 55901-7829

EXAMINER
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MOISE, EMMANUEL LIONEL

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/435,789

Applicant(s)

SMITH, GORDON JAMES

Examiner

Emmanuel L. Moise

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-19, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-16 and 24 is/are rejected.
- 7) ☒ Claim(s) 7-9, 17-19 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This Office action is responsive to Applicant's amendment received on June 14, 2004.

Claims 1-9, 11-19, 24 and 25 are pending.

2. Applicant's arguments with respect to claims 1, 3, 6, 11, 16 and 24 have been considered but are moot in view of the new ground(s) of rejection. The rejection of claims 2, 4, 5 and 12-15 under 35 U.S.C. 103 (a) as being unpatentable over Lee (U.S. Patent No. 5,245,661), however, is maintained.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 11-16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. Patent No. 5,425,661).

As per **claim 1**, Lee teaches a method of electronic watermarking comprising: sampling input signals using an uneven sampling rate (column 3, lines 41-47). As per **claim 11**, Lee teaches the claimed apparatus for electronic watermarking, comprising: input means for receiving input signals (column 3, lines 27-28); and sampling means for sampling the input signal using an uneven sampling rate (column 3, lines 41-47).

Regarding **claims 1 and 11**, it is noted that Lee does not explicitly disclose the use of the samples in the context of watermarking signals representing a work as now required by independent claims 1 and 11. It would have been obvious to one of ordinary skill in the art,

Art Unit: 2136

however, to implement the claimed invention because one of ordinary skill in the art understands that once the concept of uneven or non-uniform sampling rate is utilized, the nature of the input signals is irrelevant since all these signals are represented in digital form (i.e., a bunch of zeroes and ones). The motivation would have been to provide a more versatile distributed sample scrambling method/system.

As per **claim 3**, the sampling in Lee also comprises sampling using a pseudo-random sampling rate (column 3, lines 29-31).

As per **claim 6**, Lee teaches the claimed method of authentication of candidate data comprising: sampling original signals using an uneven sampling rate to produce unevenly sampled original signal data (column 3, lines 41-47); and comparing the unevenly sampled original data with the candidate data for a degree of match (column 4, lines 4-11). As per **claim 16**, Lee teaches the claimed apparatus for authentication of candidate data comprising: sampling means for sampling original signals using an uneven sampling rate to produce unevenly sampled original signal data (column 3, lines 41-47); and comparing means for comparing the unevenly sampled original data with the candidate data for a degree of match (column 4, lines 4-11).

Regarding **claims 6 and 16**, it is noted that Lee does not explicitly disclose to determine whether candidate data is authentic as now required by independent claims 6 and 16. It would have been obvious to one of the ordinary skill in the art, however, to implement the claimed invention because one of ordinary skill in the art understands that the technique disclosed by Lee to correct the descrambler SRG state in Lee (column 4, lines 1-16) can also be used to determine whether candidate data is authentic since it is based on whether different unevenly sampled

Art Unit: 2136

signals are identical to each other. The motivation would be to provide a more versatile distributed sample scrambling system.

Claim 24, which now includes the limitations of claims 11 and 16, is rejected for reasons similar to those set forth against claims 11 and 16.

Claims 2, 4, 5 and 12-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lee. *Please see Paragraph 5 of the previous Office action for details.*

#### ***Allowable Subject Matter***

5. Claims 7-9, 17-19 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2136


however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel L. Moise whose telephone number is (571)272-3865.

The examiner can normally be reached on M-W (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Emmanuel L. Moise  
Primary Examiner  
Art Unit 2136